■Features

- Uni-directional ESD protection.
- Surface mount package.
- Ultra small SMD package:0402.
- High component density.

■ Mechanical data

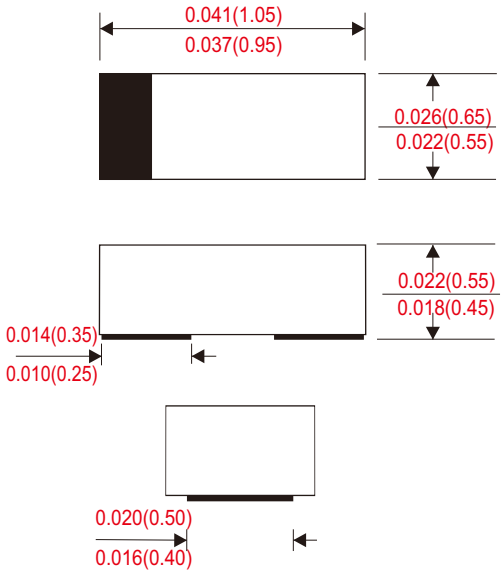
- Case : 0402/SOD-923F standard package,molded plastic.
- Terminals : Gold plated, solderable per MIL-STD-750 Method 2026
- Marking Code : Cathode band & E2
- Mounting position : Any.
- Weight : 0.001 grams(Approx).

■ Circuit Diagram



■Outline

SOD-923F



Dimensions in inches and (millimeters)

■Maximum ratings and electrical characteristics

(at TA=25°C unless otherwise noted)

Parameter	Conditions	Symbol	Min	Typ	Max	Unit
Marking code		E5				
Forward voltage	I_F = 10mA	V_F		0.8		V
Diode breakdown voltage	I_R = 1mA	V_{BD}	13.3	15.5	17.5	V
Leakage current	V_R = 12V	I_L		0.1	1.0	uA
Junction capacitance	V_R =0V,f =1MHz	C_T			60	pF
ESD capability	IEC 61000-4-2(air)	ESD			30	kV
	IEC 61000-4-2(contact)	ESD			30	kV
Clamping Voltage	I_{PP} = 1 A, tp=8/20us	V_c			19	V
	I_{PP} = 5 A, tp=8/20us	V_c			24	V
Peak pulse power		P_{PP}			120	W
Operating Junction temperature		T_j	-55		+125	°C
Storage temperature		T_{STG}	-55		+150	°C

■Rating and characteristic curves

Fig.1 - 8/20us Peak Pulse Current Wave Form Acc. IEC 61000-4-5

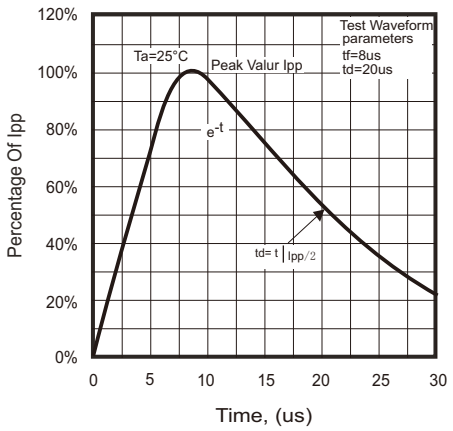


Fig.2 - Power Rating Derating Curve

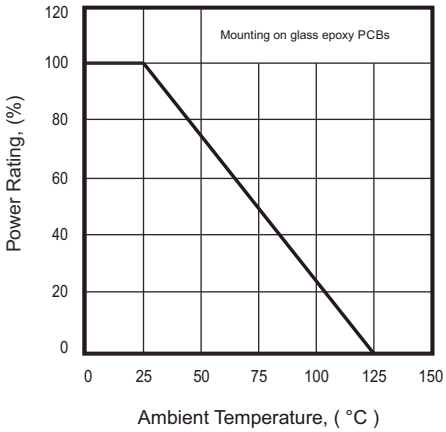


Fig.3 - Clamping Voltage Vs. Peak Pulse Current

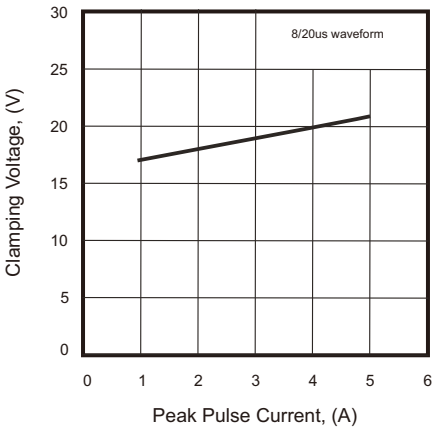


Fig.4 - Clamping Voltage Vs. Forward Peak Pulse Current

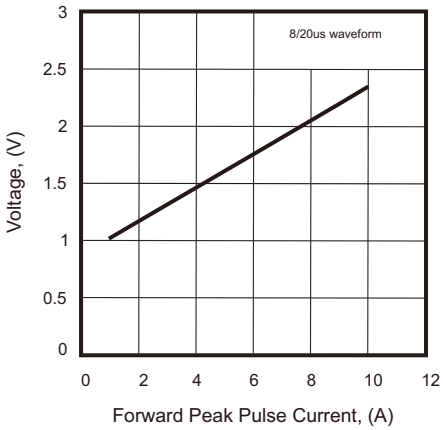
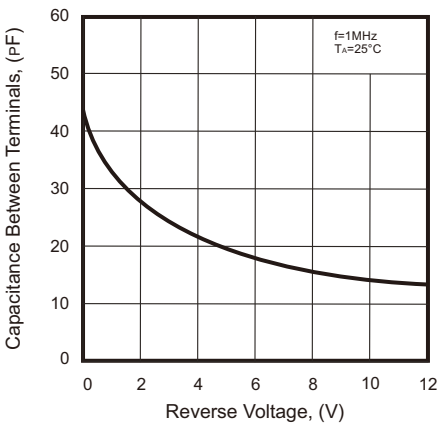
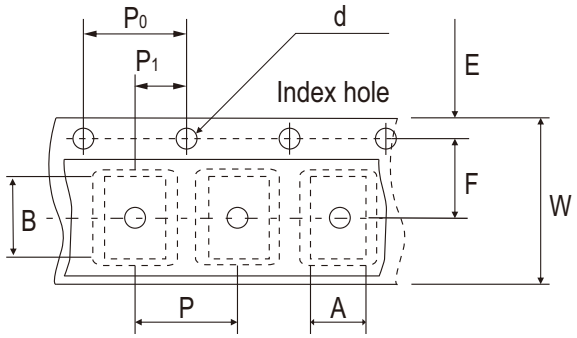


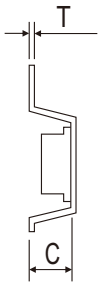
Fig.5 - Capacitance Between Terminals Characteristics

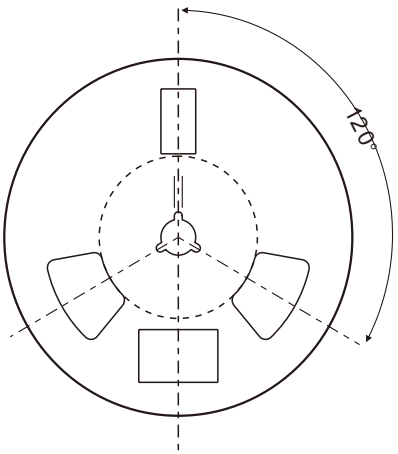


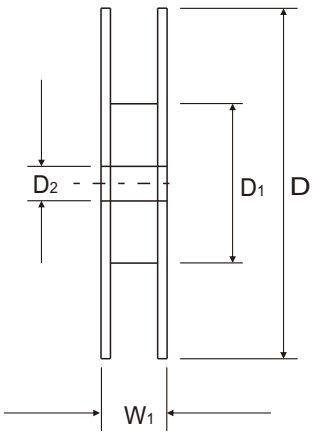
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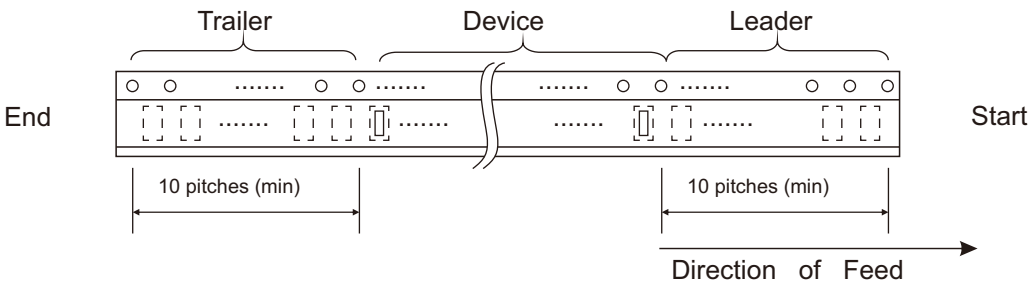
■Reel Taping Specification







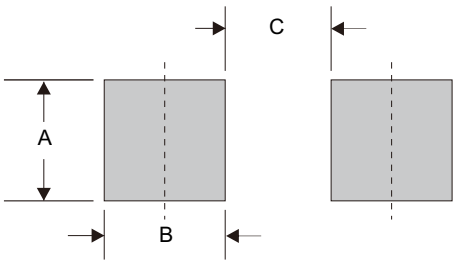




	SYMBOL	A	B	C	d	D	D_1	D_2
0402/ SOD-923F	(mm)	0.75 ± 0.10	1.15 ± 0.10	0.60 ± 0.10	1.55 ± 0.10	178 ± 1	60.0 MIN.	13.0 ± 0.20
	(inch)	0.026± 0.004	0.045± 0.004	0.024± 0.004	0.061± 0.004	7.008± 0.04	2.362 MIN.	0.512± 0.008

	SYMBOL	E	F	P	P_0	P_1	T	W	W_1
0402/ SOD-923F	(mm)	1.75 ± 0.10	3.50 ± 0.05	4.00 ± 0.10	4.00 ± 0.10	2.00 ± 0.10	0.22 ± 0.05	8.00 ± 0.20	13.5 MAX.
	(inch)	0.069± 0.004	0.138± 0.002	0.157± 0.004	0.157± 0.004	0.079± 0.004	0.009± 0.002	0.315± 0.008	0.531 MAX.

■SOD-923F foot print



A	B	C
0.028 (0.70)	0.020 (0.50)	0.010 (0.25)

Dimensions in inches and (millimeters)

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